Dynamic Balance Long Tonearm Model: IT-407CR1

Instruction Manual

1. Contents of the packing box

(Make sure the following contents are included in the box)

① Tonearm assembly
② Counterbalance weight
③ Tonearm Base
④ Headshell (with 4N lead wires)
⑤ Stud for tightening arm base (2 pcs)
⑥ M2.6 screws (2 types/4 pieces: M2.6-7mm x 2 pcs. & M2.6-10mm x 2 pcs.)
⑦ Hex-wrench (4 kinds: M2, M2.6, M3 & M4) ）
⑧ Tonearm Height Adjustment Screw (2 pcs)
⑨ Template (Use to determine the mounting position)
⑩ Tonearm cable
⑪ Instruction manual (this booklet)
⑫ Warranty statement

2. Installation

(1) Locating the mounting position by using the template:

Use the template to locate the mounting position correctly with a careful attention not to allow the counterbalance weight at the rear of the tonearm's counterbalance weight pipe to touch the turntable cover. (Make sure the counterbalance weight does not touch the turntable cover when the cartridge mounted on the tonearm is positioned at the center of the turntable.)

(2) Locking the arm base:

Drill a tonearm base mounting hole of 31mm in diameter. Remove the nut and washer from the arm base, and then insert the arm base into the mounting hole in the turntable board, and securely fasten it from the bottom of the board with the nut and washer: (Use two studs to tighten the arm base beneath the turntable board.)

(3) Mounting the tonearm assembly on the arm base:

Insert the tonearm assembly into the arm base mounted on the turntable board. Mount the two arm base fixing screws, but leave them a little bit loose without tightening. Then adjust that the turntable with a record disk on it and the arm fitted with a cartridge (both sides of headshell/cartridge and arm rotation part) are horizontally parallel with each other, and then adjust the toneram height by using two arm base fixing screws.

(4) Connecting the tonearm cable to the arm assembly:

Connect the 5-pin plug (output) of tonearm cable to the arm shaft located at the back of a turntable board. When connecting the 5-pin plug to the arm shaft, make sure that the the plug guide of 5-pin should be matching with the guiding position (engraved inside the arm shaft) and then push inside firmly all the way into the socket.

(5) Mounting the cartridge to the headshell:

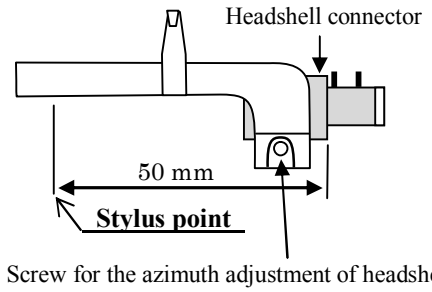
The standard headshell pre-installs the lead wires (Rhodium plated). Connect the lead wire's tips onto the pin assignments of the cartridge to be used. The lead wires are based on the standard color code as below.

(R+: Red. R-: Green. L+: White. L-: Blue)

The headshell position should be adjusted as below so that the stylus is positioned as shown in Fig. 1

[Fig. 1] Standard headshell included as an accessory

《 **Left-side angle** 》

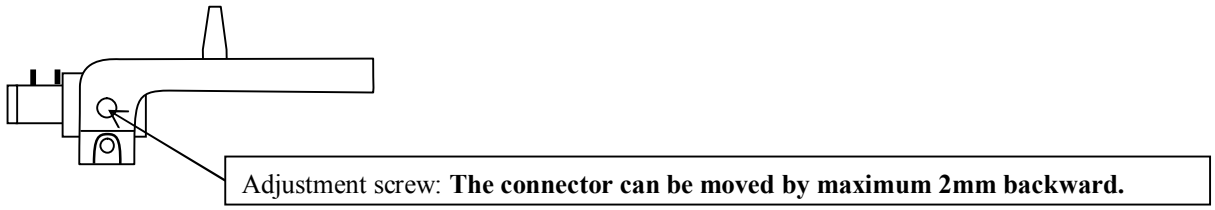


- When the cartridge is adjusted as shown in the Fig 1, the effective length of tonearm will be as follows:

Tonearm Model No. IT-345 CR-1→ 245mm
Tonearm Model No. IT-407 CR-1→ 307mm

- The distance between the connector and the stylus point is pre-fixed with 50mm as per Fig. 1. If more distanceis required, maximum 2mm can be extended backward by "a screw for the azimuth adjustment".

《 Right-side angle 》



[Note]

Whenever replacing the existing cartridge with a new one due to a worn stylus, replace the headshell lead wires as well with new ones. In order to secure the best performance of a 3-ohm low impedance cartridge, it is important to keep all of the points of contacts clean at all the times to minimize the contact resistance. (Also keep clean other contacts between the headshell leads and the shielded cable and between the matching transformer and the head amplifier)

(6) Adjusting tonearm fore-and aft- balance:

After the cartridge is mounted onto the headshell, then mount the headshell to the 4-pin cylinder of tonearm assembly and fix the headshell with the lock nut tightly not to move. The loose headshell will cause the deterioration of sound quality.

(The counterbalance weight has a screw on the body to fix in a position.)

When the above process is done, leave the fixing screw of the counterbalance weight loosely without tightening. Set the stylus pressure gauge to "0", and move the counterbalance weight back and forth to adjust the arm balance. When the cartridge on the tonearm is just a slightly downward rather than horizontally paralleled, you can fix the counterbalance weight with a screw. (or if you do not want to fix the counterbalance weight with a screw, it is OK for leaving the counterbalance weight unscrewed.)

If you frequently replace the cartridge, you may leave the counterbalance weight screw semi-fixed to such an extent that the counterweight balance does not move. This will not cause any deterioration of sound quality and make it easier to replace cartridges.

(7) Adjusting stylus force pressure:

When you rotate the stylus force pressure ring (in 0.5g steps), the stylus force indicated by the graduated scale is applied to the stylus tip up to 5g maximum.

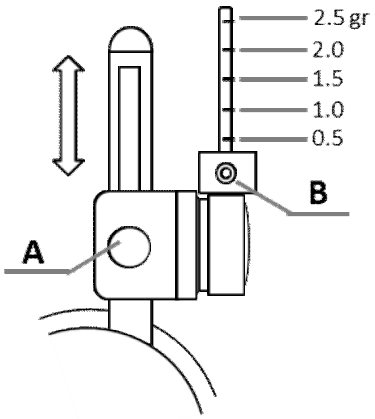
Stylus force varies almost linearly even inbetween the click stops.

(8) Adjusting the inside-force canceler (Anti-skating):

The weight with a lever located at the right rear of the arm assembly is used to cancel the inside force (the force generated by the rotation of the record disk will draw the arm towards the center of the record disk.). The inside force varies in proportion to the stylus force of the cartridge to be used. Therefore, adjust the position of the weight according to the stylus force. The canceler scale rod is graduated in the step of 0.5g each. The pressure to the inside weight should be set at 1/2 of the cartridge stylus force.

Fig. 2 shows the position of the weight on the scale.

[Fig. 2] Inside Force Canceler Assembly
(View from the above)



A: Inside Force Canceler adjustment/fixing screw.
B: Inside Force Balance Weight fixing screw.

back and forth, and then ensure that the weight "B" works at the point that the stylus tip set at the outermost groove of the record disk.

IKEDA Model: IT-407CR1 Specifications:

- Type: Dynamic balance.
- Overall length: 388mm
- Effective length: 307mm
- Overhang: 12mm
- Tracking error: +2° ～ -0° 35'
- Stylus force range: 0g ～ 5g (in 0.5g steps)
- Mounting hole diameter: 31mm
- Arm height adjustment range: 25mm ～ 60mm
- Max. arm board thickness: 35mm
- Cartridge/headshell balance range: 6g ～ 38.5g
- Headshell weight: 17.2g

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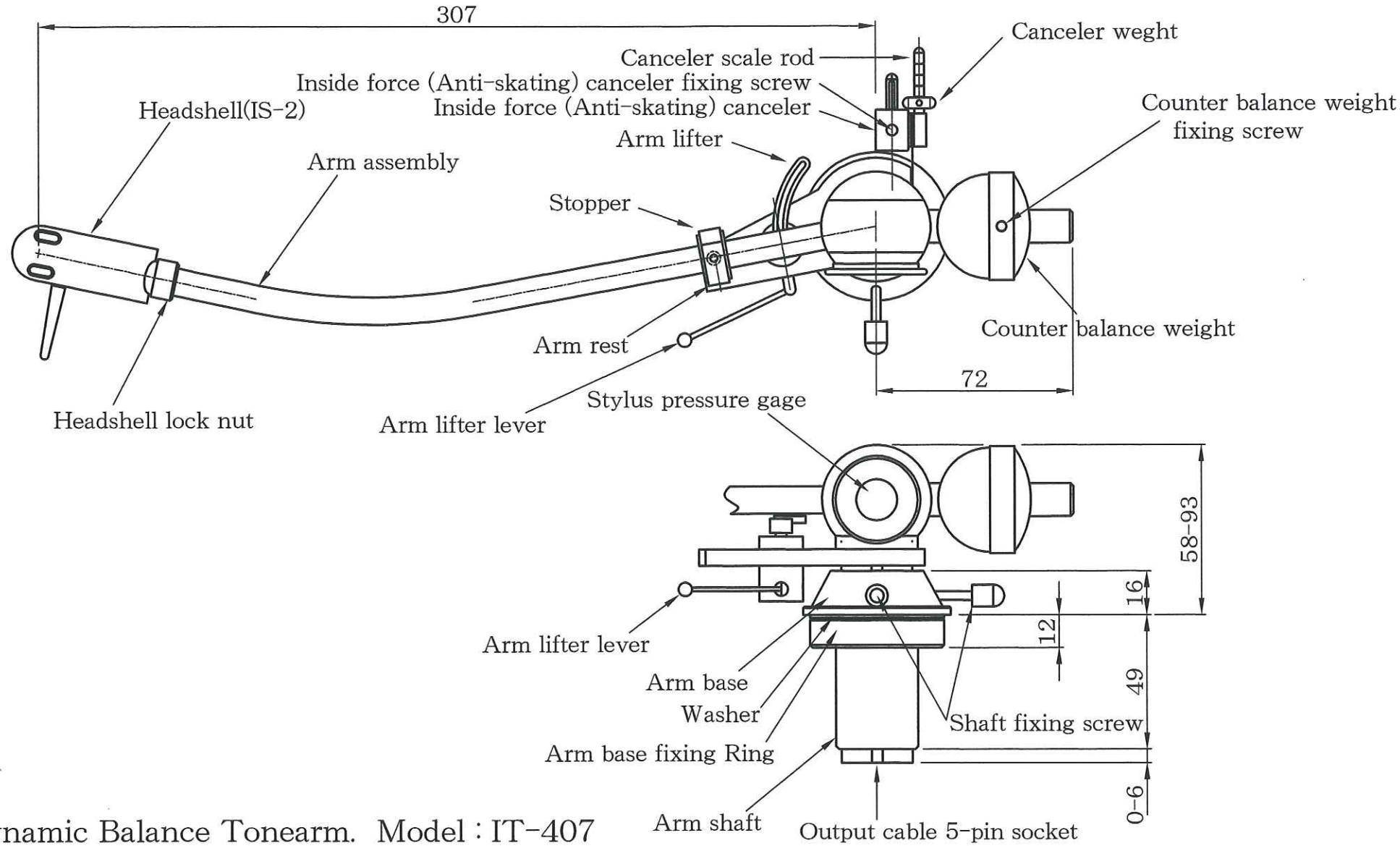

Dynamic Balance Tonearm. Model : IT-407

IKEDA Sound Labs.